

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 February 2003 (27.02.2003)

PCT

(10) International Publication Number
WO 03/016901 A1

(51) International Patent Classification⁷: G01N 33/50

92, Seohyeon-dong, Bundang-gu, Seongnam-si, 463-050

(21) International Application Number: PCT/KR02/01544

Gyeonggi-do (KR). CHOI, Won-Bong [KR/KR];

(22) International Filing Date: 13 August 2002 (13.08.2002)

103-1004 Gugal 2-jigu Poonglim Apt., 166 Gugal-ri,

(25) Filing Language: English

Kiheung-eub, Yongin-si, 449-900 Gyeonggi-do (KR).

(26) Publication Language: English

(74) Agent: LEE, Young-Pil; The Cheonghwa Building,

(30) Priority Data: 2001-49033 14 August 2001 (14.08.2001) KR

1571-18, Seocho-dong, Seocho-gu, 137-874 Seoul (KR).

(71) Applicant (for all designated States except US): SAM-SUNG ELECTRONICS CO., LTD. [KR/KR]; 416 Mae-tan-dong, Paldal-gu, Suwon-city, 442-373 Kyungki-do (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(72) Inventors; and

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

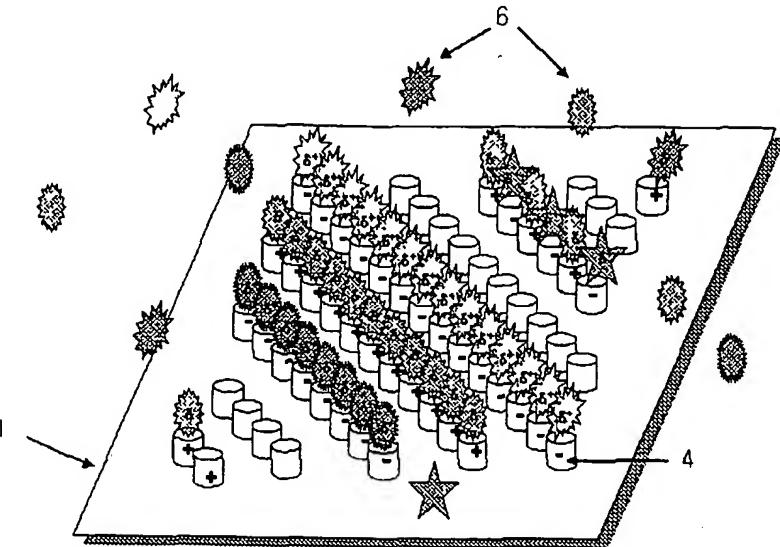
(75) Inventors/Applicants (for US only): KANG, Seong-Ho [KR/KR]; 108-303 Dongwon Apt., 1878-5, Jeong-wang-dong, Siheung-si, 429-450 Gyeonggi-do (KR). PAK, Yukeun Eugene [US/KR]; 408-606 Hyundai Apt.,

[Continued on next page]

(54) Title: SENSOR FOR DETECTING BIOMOLECULE USING CARBON NANOTUBES



WO 03/016901 A1



(57) Abstract: The present invention provides a sensor for detecting a biomolecule, particularly a sensor for detecting a biomolecule comprising (a) a substrate; and (b) a plurality of carbon nanotubes which are arranged on the substrate and provide a binding site for a receptor for a target biomolecule. According to the present invention, a various kinds of disease-associated biomolecules can be detected simultaneously, accurately and quickly.